

STANDARDS COORDINATING COMMITTEE (SCC) MINUTES

12 DECEMBER 1995

1. INTRODUCTION/OPENING REMARKS

Colonel James Williams, Chairman, Standards Coordinating Committee (SCC) and Deputy Commander, Center for Standards (CFS), welcomed the members to the seventeenth meeting of the SCC. A complete list of attendees is attached as Appendix A. COL Williams stated that the agenda was fairly short and highlighted the important issues facing the Information Technology (IT) standards community. COL Williams announced that Ms. Virginia Conway has been nominated to be the new Chief of the Information Processing Standards Department within the CFS. She will replace Mr. Bobby Zoll who is retiring. COL Williams then introduced the issue of the Joint Technical Architecture (JTA) for Systems Interoperability. He discussed the magnitude of the effort and the compressed time frame (6 months) to complete this task. He then gave the basis starting point for development of the JTA, the Army's technical architecture. He introduced Dr. Jeremy Kaplan to brief the SCC on that topic.

2. JOINT TECHNICAL ARCHITECTURE (JTA)

Dr. Jeremy Kaplan, Deputy Director of the C4I Integrated Support Activity (CISA), presented the background on the tasker he received from the Assistant Secretary of Defense for C3I (ASD(C3I)) to establish a Joint Technical Architecture in coordination with the Defense Information Systems Agency (DISA). Dr. Kaplan highlighted the necessity for developing a single set of technical standards as a means of fostering systems interoperability. Previously, the services, CINC's and agencies have established their own service unique sets of standards or technical architectures. Some efforts were made to coordinate and harmonize these efforts. However, to this point no acceptable joint technical architecture has been agreed upon. Dr. Kaplan provided SCC participants with a copy of the ASD(C3I) tasking letter signed by Mr. Emmett Paige asked that SCC members provide their fullest participation. He requested that each member provide their most senior technical architect who has decision making authority. The purpose of this effort will be to unify DOD's position and have an approved JTA that will become binding on all DOD C4I acquisitions. He stated that the JTA Work Group would begin immediately and needed to reach a consensus on a working set of standards within three months. A final set of standards and a way to tie that set to the Global Command and Control System (GCCS) and the Common Operating Environment (COE) must be completed within six months. Dr. Kaplan said that the Army's technical architecture was selected by the senior technical representatives at their 8 December 1995 meeting. This was done because their architecture was

at least 80% TAFIM-compliant and could form the basis to complete selection of the final 20% in a shorter period.

3. *JTA INITIAL PROGRESS REPORT*

COL Williams provided an update to the SCC on what has been accomplished on the JTA within the CFS since receiving the tasking. He explained the basic process for getting standards included in the Joint Technical Architecture. He indicated how the CFS had conducted an analysis of the available architectures and highlighted the differences. He stated that the first markup of the Army Technical Architecture (first draft of the JTA) will be ready for staffing by 15 January 1996 (subsequently slipped until 23 January due to adverse weather). He requested the SCC representatives' assistance in helping him get the names of individuals who will participate in the Conflict Resolution Work Group not later than 20 December 1995. Several questions were raised as to the process of getting the JTA out for staffing and turning it around in such a short period. The idea was raised to post it on the ITSI BBS. The Army indicated that the draft version of their technical architecture Version 4 was posted on the Army BBS. Mr. Pilla, Chief of the Information Transfer Department, CFS, asked if the SMC chairs would all be briefed if they are required to make quick turn around within their committees. In response to the question, COL Williams said he would schedule a briefing the following week for all of the SMCs. The NSA and DMA representatives asked how they should participate. COL Williams indicated that they should make their input through their respective SMCs. The consensus was that this was a significant task and would require careful attention and support from all parties to get it accomplished within the time allocated.

4. *DMS TACTICAL MESSAGING STANDARDS*

Mr. John Samanick of the Information Processing Standards Department of the CFS presented an information briefing to the SCC on the CFS role in providing direct support to the Defense Messaging System (DMS) Program Manager's Office (PMO) to develop Standards for DMS. This includes resources and coordination in working towards interoperability. In addition, he provided an overview of the transfer protocols standardization efforts. This included the PMO and support for National/International standards bodies. He also indicated configuration management of standards was being coordinated with the newly formed Information Transfer Management Panel (IXMP). He then provided a brief summary of the DMS standards structure and ongoing standards projects. Most notable among these was the messaging technology standardization which includes ISO/ITI x.400 standards and DMS extensions and ACP123 US Supplement as a core standards suite. Mr. Samanick stated that they were extending the standards suite to meet the needs of the tactical community. Mr. Samanick said that the ASD(C3I) considered this a very important project and wanted to ensure everyone that PMO

DMS was working with the Federal E-Mail group. He stated that the group was currently working on development of additional standards and profiles dealing with connectionless operations and data compression. Mr. Samanick pointed out that hands on testing of compression algorithms was ongoing and that a final report with recommendations will be presented to the IXMP messaging working group and the DMS PMO. Finally, he stated that he thought GZIP would probably be recommended for DMS.

5. *PORTABLE INFORMATION CARRIER*

Ms. Janice Schafer of the Information Processing Standards Department, Integrated Services Division, CFS, presented a briefing on the Portable Information Carrier (PIC) effort. The purpose of the briefing was to increase the understanding of PIC and the need for PIC standards. A PIC is a portable device which contains one or more technologies used to store information related to an individual and is used in one or more applications. The PIC may contain both upgradeable and static technologies such as integrated circuit chip, magnetic stripe, bar code, digitized photo, and embossing. Ms. Schafer emphasized that DOD's primary area of interest is the integrated circuit chip. The current scope of the PIC is the ISO 7816-1, Integrated Circuit Chip Card. The potential types of applications that can be used with the PIC range from medical, transportation, logistics, finance, benefits, the personnel area, security, legal and quarters management to training and education. The PIC is designed in a consistent manner to provide services and interfaces from applications to PICs. Areas of primary concern are: security, data management, chip operating system, and data interchange. The PIC provides benefits of minimizing the number of cards a warfighter carries, maintaining a capability for consistent upload of information and allowing for multiple card suppliers. Ms. Schafer said that ASD(C3I) was providing money to the National Institute for Standards and Technology (NIST) to develop a Federal Information Processing Standard (FIPS) publication for PICs. She then gave a brief status of ongoing PIC use in DOD. PIC efforts includes the ongoing MARC prototype and the Academy Card-for use by the military academies.

Ms. Schafer indicated that a JROC was being developed to acquire cards over the next 5 years. DOD expects to issue an RFI in the summer of 1996 with an RFP for the 1st or 2nd quarter of 1997. Finally, Ms. Schafer requested the support and commitment of the SCC members in getting the appropriate people to attend their functional and technical meetings related to the PIC effort.

6. *MIDDLEWARE INFORMATION BRIEF*

Mr. Dan Wu of the Information Processing Department, CFS, presented a briefing on the use of middleware/software. First, he defined middleware as software in the middle of a

client/server system that lets a client obtain a service from a server. He stated that there are various types of middleware including communication stacks, distributed directories, authentication services, network time, Remote Procedure Calls, queuing services and network operating system extensions such as distributed file and print service. Specific services consist of database middleware, On Line Transaction Processing (OLTP) middleware, groupware/workflow middleware, object middleware and system management. He pointed out that many middleware standards such as Distributed Computer Environment (DCE), Structured Query Language (SQL) and Common Object Request Broker Architecture (CORBA) already exist in the Technical Architecture for Information Management (TAFIM) Volume 7. He said that the CFS had work ongoing which includes: New STD Workflow, Implementation guidance-DCE to support GCCS and the COE and Applications defining object domains. He stated that some open middleware standards in the TAFIM lack commercial products whereas many existing products on the market were proprietary (99%). Mr. Wu implied that the major problem was how to integrate diverse middleware products into a single environment. A general discussion followed on how to best identify products that would be implementable for Program Managers. Mr. Bert Newlin OSD3I said that we needed a way to identify implementable standards. COL Williams said that one of the tests for selection and inclusion of standards in the JTA would be that they are implementable.

7. APPLICATION PROGRAMMING INTERFACE (API)

(Action Item 2-95-03)

Mr. Curtis Royster reintroduced the SCC to the Application Programming Interface (API) definition. The API is the interface between the application software and the application platform across which services are provided. At the Application Platform level, a set of resources, including both hardware and software, support the services which run the application software. The application platform provides services at its interfaces and, (as much as possible), make the specific characteristics of the platform transparent to the application software. The goal is to achieve a source of portability that is not yet part of an API. Portability will make it easier for software and data to be transferred from one information system to another. Mr. Royster stated that an API's relationship to application software is specific to an application and is composed of programs, data, and documentation. Further, he indicated that APIs were necessary to provide source code portability, vendor independence, reusability, and scalability.

Mr. Burt Newlin asked if Interoperability was a part of APIs. Mr. Royster identified the sources for DOD recognized APIs which include: the TAFIM Volume 7, Information Technology Standards Guidance (ITSG), Intelligence Department of Defense Intelligence Information System (DoDIIS), Defense Information Infrastructure (DII) COE, Weapons list of standards (APIs) NIST (V3.0) document and the Mission Critical Computer Resources (MCCR).

Mr. Royster said that APIs provide the following essential characteristics: Portability, which is the ease with which software and data can be transferred from one information system to another, and scalability, the ability to provide functionality up and down a graduated series of application platforms that differ in speed and capacity. Platform services including APIs are: Office Automation, E-Mail, Database Access, File Transfer, Clock/Calendar, Communications, User Interface, Security, Fault Management, System Management, Operating Systems, Device Drivers, and Real-Time.

Mr. Royster said that Dr. Kaminsky was drafting a letter for weapon systems PMs to make use of the TAFIM as a source of authority for selection of standards.

COL Williams stated that this briefing fulfills the requirement and recommended closing Action Item 295-03. He asked for the concurrence of the SCC. The SCC concurred.

8. *GENERIC APPLICATION ENVIRONMENT PROJECT*

Lt Col Art Decelles, USAF, Open Systems Joint Task Force presented an information briefing on USD(A&T) Policy on the Open system approach to be used for acquisition of weapon system electronics. He discussed the Open System Joint Task Force (OS-JTF) Charter which is to sponsor and accelerate the adoption of the Open Systems standards in Weapon systems acquisitions. Lt Col Decelles defined the scope of the charter which includes: Weapons systems and platforms, hardware, software, tools, and architecture, electrical, mechanical, thermal, etc. but does not include C3I systems, communications networks, nor non-real time data processing functions. He then highlighted the OS-JTF Vision which is: To establish in DOD an open systems approach as the foundation for all weapon systems acquisitions in order to lower life cycle costs and improve weapons systems performance. He stated they would act as the Lead Standardization Activity (LSA) for Open Systems Weapons Electronics. They will coordinate with other LSAs relevant to open system designs by designating appropriate open systems standards for DOD weapons system use and identifying and selecting other necessary standards in coordination with the Defense Standards Improvement Council. He stated that the identification and selection of information technology standards for weapon systems shall be coordinated by the Task Force, but remain under the purview of the Executive Agent for Information Technology Standards at the DISA.

Lastly, Lt Col Decelles discussed the composition of the Committee On Open Electronic Standards (COES) and the participants who include the following: Chair-OS-JTF Director, Army-DISC4, Navy-DASN C3I, EWI, Space, Air Force-HQ AFMC Engineering, DARO-Deputy for Technology, US SOCOM-Deputy for Acquisition and the DISA/JIEO-Center for Standards. He stated that the key responsibilities of the COES were to:

- Coordinate and integrate the identification and selection of open systems standards for weapon systems.
- Coordinate identification and selection of Information Technology (IT) specifications and standards for weapon systems through the SCC.
- Coordinate DOD requirements for communication to non-government standards bodies.
- Act as focal point for Services, Agencies, and CINC's to resolve issues.

He said that the OS-JTF was a member of the SCC Sub-Group for IT area only. Lt Col Decelles pointed out that their Charter was signed on 14 November 1995. He discussed the work that had been accomplished to date which includes four working meetings: [11 July, 22 August, 27 September, 2 November 1995], several Technical Architecture briefings, Weapon System Domain discussions, discussions on TAFIM Relevance to Weapon Systems acquisitions and that the first committee meeting was scheduled for 13 December 1995. In closing, he said that anyone wanting more information on the OS-JTF could find it through their Homepage and indicated that their charter and minutes from meetings were currently posted. [<http://www.acq.osd.mil/osjtf>].

9. *NATO POST 2000 TACOM*

Mr. Mike Fragale of the Information Transfer Standards Department presented a decision briefing on support of the US position on Project Group 6 and the US position to support the formation of an International Project office (IPO). The briefing detailed the background, status and direction of NATO PG/6. He stated the need to establish a US position and obtain SCC support. He stated that the US is participating on NATO Tri-service Group on Communications and Electronics (TSGCE), AC (302) Subgroup 11, PG/6 in an effort to develop the NATO Post-2000 TACOM architecture. The TACOM architecture would be a leap forward in new technologies and standards, such as asynchronous transfer mode (ATM). This would help eliminate the expensive requirement for retrofitting gateways between national systems. Mr. Fragale said that this work had been organized into three phases. During Phase 1, the group reviewed the available technology. Phase 2 produced a system architecture defined in the Phase 2 report. Technical Working Parties (TWP's) are currently refining the system architecture. During Phase 3, the International Project Office (IPO) will be established. A Memorandum of Understanding has been negotiated in the PG/6 arena. The MOU is an agreement for the participating nations to fund and support the IPO. The MOU defines the cost, funding, and staffing required for the IPO. The IPO will manage the development of the NATO Post-2000 TACOM STANAGs. A multi-national contracting team will perform the technical development. The IPO was scheduled to begin operation in February of 1996, but will be delayed until after the MOU is signed. Total contribution of each nation is expected to be \$2.9M

over 5.5 years. He indicated that the OASD(C3I) has been a supporter of the project. Mr. Fragale said a full commitment is required by the US because the PG/6 is dominated by the European nations. The briefing was presented to the Military Communications Electronics Board (MCEB), and the MCEB directed that the issue be presented to the SCC and services for their coordination and approval prior to returning to the MCEB.

After presentation of the background, two alternatives were given to the SCC for a decision and support from the services. Agreement on the first alternative is required to meet the agreements with the other nations participating on PG/6. The second alternative could be pursued and be presented to PG/6 as a more cost-effective method for developing the STANAGs. Alternative 1: The US sign the Phase 3 Memorandum of Understanding (MOU) and support the IPO. The services share in funding the IPO and provide the IPO Project Manager. DISA will provide technical support to the IPO. The US will support the PG/6 decision on the location of the IPO. Alternative 2: The US will propose and participate in a cooperative project group with the other PG/6 participants as part of an evolutionary process consistent with emerging US/NATO TACOM development methods.

The SCC agreed to the first part of the first alternative, that the US should support and participate in the IPO. The Air Force agreed to provide the Project Manager (PM) for the first three years if the funding issue is resolved. The Army could provide a PM on a fee for service basis. This means that the Air Force will also be reimbursed for their support. The funding distribution among the services was not decided. The SCC members agreed that one of the Services should accept the lead and be responsible for funding the project. Further, a decision brief should be prepared for the MCEB to decide funding and lead service responsibility.

The Joint Staff representative recommended that the briefing be presented to the IIP on the 13th of December.

10. *STANDARDS PROCESSING IMPROVEMENT*

Mr. Berrios, Chief of the CFS DOD Standards Assistance Department, presented an information briefing on the results of the standards process improvement work and the Draft White Paper that had been prepared for formal coordination with the SCC. He highlighted the White Paper contents including Chapter 1 which is the Executive Summary and Chapter 2 which contains detailed findings and recommendations. The findings were the following: When dealing with standards requirements analysis valid CONOPS were not always available which made it difficult to assess requirements impact on programs. The services level of participation and interaction in the SMCs/Working Groups is inconsistent. Service staffing levels were insufficient to provide representation to all SMCs and WGs. There are too many SMC/WGs.

Further, non-government resources are not always utilized early in the process: e.g. IETF, ANSI, IEEE etc.. In the area of Standards development and testing CINC, Service, or Agency voting weights are not subject to their level of participation. Standards are not always tested through actual implementation. In addition, there is a lack of conformance testing in vendor products. Standards development within non-government standards bodies or consortia are not aggressively pursued. There is a general perception that a uniform standards adoption process does not exist for the adoption and configuration management of standards. Standards implementation guidance audit trails are not kept or readily accessible. Additionally, updates and distribution of the TAFIM Volume 7 are not timely and the medium used to distribute and staff changes is too slow. Mr Berrios requested that the SCC membership review the White Paper and provide comments NLT 31 January 1996. He said that he would review the comments and provide final recommendations at the 5 March 1996 SCC meeting.

11. *IPSC DIVISION STATUS REPORT*

Ms. Virginia Conway of the CFS Information Processing Department presented a briefing on the SCC assessment action plan. She indicated that the action plan had been overcome by recent events and that the SCC assessment group had been dissolved. Ms. Conway said that the spreadsheet they had developed was used to support development of the JTA. Ms. Conway then presented a management plan for developing a formal functional process (IDEF Models) to be conducted during the 14-15 February 1996 time frame. Participants will include the SCC members, CFS, Standards Management Committee Representatives and Subject Matter Experts. They will develop a consensus-based process on a fixed schedule and hopefully eliminate any misunderstandings. A new configuration management plan will be published in the June/July 1996 time frame. She presented a work schedule for the 1996 time frame which included the distribution and review of the Draft TAFIM version 3.0 by 16 October 1995 and the consolidation of CINC, Service and Agencies' comments. Release of Volume 5 (Program Manager) guidance, AITS/ITSG update with final TAFIM version 3.0 will be out by 1 April 1996. Ms. Conway then gave an update on the X/OPEN Consortia and indicated that they had formally adopted the TAFIM (Volumes 2, 3, and 4) as the baseline for the X/OPEN architecture framework.

12. *SCC STRAWMAN DEMONSTRATION ON WWW*

Mr. John Bridger, CFS, DOD Standards Assistance Department, presented a demonstration showing how to access SCC-related information through the Internet World Wide Web at URL address: <http://www.itsi.disa.mil/scc/scc.html>. He pointed out that most material for visitors was read-only and that access to the ITSI BBS required a user ID and password. The ITSI BBS provides a friendlier interface through the user's Mosaic, Netscape Navigator, etc.

software. The ITSI BBS access remains available for dial-in users, non-Web users, and information providers. Mr. Bridger presented future plans for SCC information on the WWW. He indicated that SCC information would be posted as hypertext/hypermedia Web documents. The CFS will add the capability for Web users to post information, e.g. document coordination and voting, and they will expand the use of a Web-based approach to subsidiary panels and working groups. In conclusion, he stated that comments/suggestions were welcomed to improve the Web/ITSI BBS service to the standards community. Mr. Berrios thanked Mr. Bridger for the significant improvements he and his staff had made to the ITSI BBS and the WWW service.

13. *REVIEW OF ACTION ITEMS*

COL Williams reviewed the list of Action Items from the previous meetings and closed items 2-95-03, 2-95-05, 3-95-02, 3-95-03, 6-93-01. He reviewed the new issues that arose from this meeting with the SCC members and the CFS staff. They are listed at Appendix C.

14. *CLOSING REMARKS*

COL Williams thanked the participants for their information updates. He felt that they were important enough to warrant bringing before the SCC. He stated again the importance of the task facing the IT standards community working with CISA to develop the JTA. He reminded the SCC members that he needed the names for the members of the Standards Conflict Resolution Work Group (CRWG) by the 20th of December. He said that he would schedule a meeting for the SMC chairs for next week to brief them on the JTA. Finally, he asked the SCC to provide their comments on the White Paper NLT 31 January 1996. The next meeting of the SCC is scheduled for 5 March 1996. In closing, COL Williams thanked all in attendance for their time and support, wished them all a happy holidays and adjourned the meeting at 1430 hours.

APPENDIX A
STANDARDS COORDINATING COMMITTEE
ATTENDANCE ROSTER
12 DECEMBER 1995

Organization/Company Name	Member's Name
DIA	Beckwith, MAJ Bernice
Secretariat/SCC	Becker-Sabik, Ms. Patti
SOUTHCOM	Bennett, Mr. Raymond
DISA/CFS	Bernardini, Ms. Doris
JIEO/CFS	Berrios, Mr. Will
DMA	Blumberg, Capt Richard
CENTCOM	Boatswain, MAJ Noel
DLA	Boles, Col Wayne
JIEO/CFS	Bragg, Mr. Norton
JIEO/CFS	Bridger, Mr. John
DISA/JIEO/CFS	Ciepiela, Ms. Carol
JIEO/CFS	Conway, Ms. Virginia L.
OSD.OS-JTF	Decelles, Lt Col Art
DISA/JIEO	Fragale, Mr. Mike
ASD/C3I Communications	Grant, Mr. Paul
DISA/JIEO/CFS	Hannon, Ms. Nanci
HQDA	Hendrick, Mr. Lenwood
DISA/CFS	Hill, Mr. David
DISA/CFS	Hoffman, CDR Randall
USD/DMSO	Huo, Dr. Chien
USACOM	Hulroy, Mr. D.
DISA	Jagger, LTC Don

Organization/Company Name	Member's Name
CNO N65 Navy	Jones, Mr. Russell
PEO-SCS	Joss, Mr. J
USTRANSCOM	Koerber, Mr. Myron
Navy/SPAWAR	Kolacki, Mr. Robert
DIS	Lamberth, Mr. David
CISA	Little, Mr. Carl
Joint Staff	Maher, Mr. Jack
USMC	McGlade, Maj D.P
HQ AFC4A/TNBC	McKinnon, Mr. Rex
DISA/JIEO	Miller, Ms. Kim
SPACECOM	Miner, Maj Dennis
DISA/CFS	Morris, Mr. Mike
ASD/C3I/IT	Newlin, Mr. Burt
NSA	Nunley, Dr. C. Dale
JIEO/CFS	Pilla, Mr. Lou
PRINCIPAL DEPUTY CFS	Ramaswami, Mr. Raj
CENTCOM	Ramos, COL Luis
DISA/CFS	Royster, Mr. Curtis
JIEO CFS	Samanic, Mr. John
CIO	Seybold, Mr. Jim
DISA/CFS	Shafer, Ms. Janice
NRO	Shane, Mr. David
Air Force/SCTA	Skinner, Col Richard
DISA/JIEO	Swatski, Leonard
USAF/SCTA	Virtue, Mr. Fred

Organization/Company Name	Member's Name
Chairman/SCC	Williams, COL James
DISA/CFS	Wu, Mr. Dan

APPENDIX B

STANDARDS COORDINATING COMMITTEE AGENDA 12 DECEMBER 1995

0800-0815	INTRODUCTION - COL James L. Williams
0815-0830	JOINT TECHNICAL ARCHITECTURE (JTA) - Dr. Kaplan, CISA
0830-0845	JTA INITIAL PROGRESS REPORT - COL Williams
0845-0915	DMS TACTICAL MESSAGING STANDARDS - Mr. Samanick
0915-0945	PORTABLE INFORMATION CARRIER - Ms. Schafer
0945-1000	BREAK
1000-1030	MIDDLEWARE - Dr. Wu
1030-1100	APPLICATION PROGRAMMING INTERFACE (API) - Mr. Royster <i>(Action Item 2-95-03)</i>
1100-1130	COMMITTEE ON OPEN ELECTRONIC STANDARDS - Lt Col Decelles, USAF, Open Systems Joint Task Force
1130-1230	LUNCH
1230-1300	NATO POST 2000 TACOM - Mr. Fragale
1300-1330	STANDARDS PROCESS IMPROVEMENT - Mr. Berrios <i>(Action Item 2-95-04)</i>
1330-1345	BREAK
1345-1415	IPSC DIVISION STATUS REPORT - Ms. Conway <i>(Action Item 3-95-02)</i>
1415-1430	SCC STRAWMAN DEMONSTRATION ON THE WORLDWIDE WEB - Mr. Bridger
1430-1445	ACTION ITEM REVIEW
1445-1500	CLOSING REMARKS

APPENDIX C

STANDARDS COORDINATING COMMITTEE LIST OF ACTION ITEMS 12 DECEMBER 1995

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| Action Item #4-95-01 | CFS will call a meeting with the SMC Chairman to discuss the development of the Standards Selection and Conflict Resolution Group and explain the JTA tasker. The meeting is tentatively scheduled for the end of December 1995. |
| Action Item #4-95-02 | SCC Members to provide comments on the Standards Process Improvement White Paper to Mr. Berrios not later than 31 January 1996. Mr. Berrios will provide the status to the SCC at the next meeting. |
| Action Item #4-95-03 | SCC members are asked to provide the names of their members for the JTA Conflict Resolution Work Group not later than 20 December 1995. |